

# CORPORATE CARBON FOOTPRINT

#### Content:

- WHAT IS GREENHOUSE GAS?
- WHAT IS CARBON FOOTPRINT? WHAT IS CORPORATE CARBON FOOTPRINT?
- GAIA SOURCING REPORTING BOUNDARIES
- REPORTING RESULTS AND GHG EMISSION DISTRIBUTION



## WHAT IS GREENHOUSE GAS?

A greenhouse gas is any gaseous compound that can absorb infrared radiation in the atmosphere and therefore trap and retain heat in the atmosphere.

The globe has warmed to a habitable temperature thanks to greenhouse gases. The difficulty is that human activities based on fossil fuels have broken this balance, particularly since the industrial revolution.

There are 7 (seven) gases or gas groups considered to have the greatest impact on Global Warming; Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, nitrogen trifluoride.



# WHAT IS CARBON FOOTPRINT? WHAT IS CORPORATE CARBON FOOTPRINT?

Carbon footprint: The total greenhouse gas emissions caused directly or indirectly by an individual, organization, event or product and is expressed as a carbon dioxide equivalent (CO2e).

At the same time, it is the study of calculating the carbon dioxide (CO2) equivalents of the effects of greenhouse gases formed as a result of activities such as production, service and processing determined by the Kyoto Protocol.

The corporate carbon footprint is a measurement of greenhouse gas emissions from all of the company's activities, including energy and fossil fuel usage in buildings, industrial processes, and businesses.

# GAIA SOURCING REPORTING BOUNDARIES

The Gaia Carbon Footprint study was carried out within the scope of the office between January 1, 2019 and December 31, 2021.

In this study, greenhouse gas emissions arising from **Category 1** (Direct), **Category 2** (Indirect-Procured Energy) and **Category** 4 (Indirect - Products Used by the Company) activities are included.

- •Category 1: Natural Gas, Gasoline, Diesel fuel
- •Category 2: Purchased electricity from the grid
- •Category 4: Water supply

Greenhouse gas emissions resulting from Gaia 's activities within its reporting and organizational boundaries from January 1, 2019 to December 31, 2021 is a total of **373.863 tons CO2 -e**.





## 2019 HAS BEEN SELECTED AS A HISTORIC BASE YEAR FOR GHG EMISSIONS TO BE COMPARED OVER TIME.



# 2019-2021 GHG DISTRIBUTION AND HISTORICAL COMPARISON

Emissions (t CO <sub>2</sub> -e)	CO2	CH4	N₂O	TOTAL
Category 1 (Direct)	331.826 tons	0.494 tons	5.26 tons	337.58 tons
Category 2 (Indirect – Imported Energy)	36.094 tons	0 tons	0 tons	36.094 tons
Category 3 (Indirect – Transportation)	0 tons	0 tons	0 tons	0 tons
Category 4 (Indirect – Products Used by Company)	0.189 tons	0 tons	0 tons	0.189 tons
Category 5 (Indirect – Use of Products from Company)	0 tons	0 tons	0 tons	0 tons
Category 6 (Indirect – Other Sources)	0 tons	0 tons	0 tons	0 tons
TOTAL	368.109 tons	0.494 tons	5.26 tons	373.863 tons

Emissions (t CO <sub>2</sub> -e)	2019 (Base Year)	2020	2021
Category 1 (Direct)	115.226 tons	107.951 tons	115.263 tons
Category 2 (Indirect – Imported Energy)	16.618 tons	11.316 tons	8.16 tons
Category 4 (Indirect – Products Used by Company)	0.074 tons	0.065 tons	0.051 tons
TOTAL	131.917 tons	119.332 tons	123.474 tons



Category 1: %90 Mobile Combustion / Company Owned Vehicles: 337.47 tons

Category 2: %10 Electricity Consumption: 36.09 tons

#### Category 4: ~ %0 Water Supply: 0.19 tons



The graphs indicate the total values for 3 years.



## **EMISSIONS BY FUNCTIONAL PARAMETER**

Gaia Sourcing CO2-e per capita;





Gaia Sourcing CO2-e per area;





In 2020, Turkey's total carbon emission amount is 393 million tons and carbon emission amount per capita is 4.7 tons.

(http://www.globalcarbonatlas.org/en/content/welcomecarbon-atlas)

The annual carbon footprint per person in Istanbul is 5.2±1.2 tons. (https://www.semtrio.com/blog/ulkelerin-karbon-ayak-izi)



